

REMARKS

This Amendment responds to the Office Action mailed March 17, 2009 in the above-identified application. Based on the foregoing amendments and the following comments, allowance of the application is respectfully requested.

Claims 1-6, 18, 25 and 26 are pending in the application. Claims 1 and 18 have been amended. The amendments find clear support in the original application at least in FIG. 18; page 15, line 1 to page 16, line 6; and claim 21. No new matter has been added.

The Examiner has rejected claims 1 and 18 under 35 U.S.C. §103(a) as unpatentable over Amon et al. (U.S. 5,742,621) in view of Blaker et al. (U.S. 5,490,178) and Lou et al. (U.S. 5,220,570). Claims 2-6, 25 and 26 are rejected under 35 U.S.C. §103(a) as unpatentable over Amon et al. in view of Blaker et al. and Lou et al., further in view of Benedetto et al. (article entitled "Soft-Output Decoding Algorithms in Iterative Decoding of Turbo Codes"). The rejections are respectfully traversed for the following reasons.

The Amon patent is discussed in detail in the Appeal Brief mailed October 17, 2007. The previous discussion of Amon is incorporated herein by reference.

The Examiner concedes that Amon does not teach the specific use of a single trellis instruction, but relies upon Blaker for teaching this claim limitation. Applicant must respectfully disagree that Blaker discloses the prior art use of a single trellis ACS instruction. Blaker, at column 5, lines 38-41, states: "A single update instruction from DSP 20 to coprocessor 30 initiates an update operation by update unit 32 to produce a cell of trellis entries." Blaker contains no disclosure or suggestion that the update unit 32, in response to the single update instruction from DSP 20, performs the operations of adding, subtracting, comparing and selecting as required by Applicant's independent claims 1 and 18.

Nonetheless, in order to advance prosecution of the application, claim 1 has been amended to recite that the adding, subtracting, comparing and selecting operations are executed in response to the single trellis instruction by *a pipelined accelerator including a first carry save adder receiving inputs, a first full adder combining sum and carry output of the first carry save*

adder, a lookup table generating a correction factor in response to the output of the first full adder, a multiplexer selecting one or more of the inputs to the accelerator in response to the sign of the output of the first full adder, a second carry save adder adding one or more outputs of the multiplexer and the output of the lookup table, and a second full adder combining sum and carry outputs of the second carry save adder to provide the trellis state metrics for time t_1 . It is submitted that Amon, Blaker and Lou, taken individually or in combination, do not disclose or suggest a method for processing signal values as defined by amended claim 1. Accordingly, amended claim 1 is clearly and patentably distinguished over the cited prior art, and withdrawal of the rejection is respectfully requested.

Claims 2-6 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Amended claim 18 is directed to a processor for processing signal values comprising a memory, a program sequencer and a computation block comprising a register file and a pipelined accelerator as described above. As should be apparent from the discussion above, amended claim 18 is clearly and patentably distinguished over Amon, Blaker and Lou, taken individually or in combination. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 25 and 26 depend from claim 18 and are patentable over the cited references for at least the same reasons as claim 18.

Based upon the above discussion, claims 1-6, 18, 25 and 26 are in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 23/2825 under Docket No. A0312.70410US00 from which the undersigned is authorized to draw.

Dated: June 17, 2009

Respectfully submitted,

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